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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,436

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Yoichi Nogata

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ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-3873

EXAMINER

GWARTNEY, ELIZABETH A

ART UNIT

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1781

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,436	<b>Applicant(s)</b> NOGATA ET AL.	
	<b>Examiner</b> ELIZABETH GWARTNEY	<b>Art Unit</b> 1781	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. The Amendment filed February 19, 2010 has been entered. Claims 5-6 and 8 have been cancelled and claims 9-13 have been added.
2. The previous claim have been withdrawn in light of applicant's amendments made February 19, 2010.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-4, 7, and 9-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 3,4 and 7 recite "two-row barley." While there is support in the specification and claims as originally filed for malting barley, there is no support for the more narrow term "two-row barley." Note, malting barley can be either two-row or six-row barley.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-4, 7 and 9-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regards to claims 1-3, the recitation of amino acid content in units of mg/100g renders the claims indefinite. It is not clear if the amino acid content is based on 100g of food ingredient, 100 g ground barley or wheat, or 100g protein.

With regards to claim 2, the phrase "60% flour" renders the claim indefinite. It is unclear wheat is encompassed by 60% flour, given the food ingredient is obtained by grinding the seed of wheat or barley and the particle size of the flour is not defined. In other words, in some cases, ground barley or wheat would be considered 100% flour.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-2, 4, 7, 9-10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walmsley et al. (US 3,716,365) in view of Government of Alberta (“Barley Production in Alberta: Harvesting”).

Regarding claims 1-2, 4, 7, 9-10, 12 and 13, Walmsley et al. disclose a beer brewing ingredient and the process of making the ingredient comprising heating an aqueous slurry of ground malting barley at about 40° to about 55°C for a period of between about 30 and about 120 minutes (C8/L66-71). Walmsley et al. disclose that the pH of the water is adjusted to between about 5.2 and 5.8 and remains essentially the same throughout the process (C8/L59-62).

While Walmsley et al. disclose ground malting barley ground in a Hobart Model 2020 Grinder adjusted to No. 1 setting, the reference does not explicitly disclose immature barley, a mixture of brand shorts or a 60% flour.

Government of Alberta teaches that while harvesting at 30% moisture is ideal, barley may be harvested when the grain contains up to 35% moisture, i.e. when it is immature (page 3/Harvesting High Moisture Barley). Government of Alberta teaches that the yield of high moisture barley is 7 to 10 % larger than that of mature grain (page 3/Harvesting High Moisture

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Barley. Government of Alberta also teaches that immature grain can be harvested 7-10 early, therefore there is less chance of storm damage to the crop (page 3/Harvesting High Moisture Barley).

Walmsley et al. and Government of Alberta are combinable because they are concerned with the same field of endeavor, namely, barley grain. Given the advantages to harvesting immature barley, as taught by Government of Alberta, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used immature barley in the process for making a beer brewing ingredient.

Given Government of Alberta teaches a barley at about 35% moisture, it is clear that the immature seed is a seed 4 to 5 weeks after heading.

Given Walmsley et al. disclose ground barley, since bran and shorts are derived from barley, it is clear that the beer brewing ingredient would comprises bran and shorts.

While Walmsley et al. disclose ground malting barley with a given particle size distribution, the reference does not explicitly disclose 60% flour. As flowability of the ground product in processing is a variable that can be modified among others, by adjusting the particle size distribution of the ground barley, the precise particle size distribution, i.e. percentage of flour, would have been considered a result effective variable by one of ordinary skill in the art at the time of the invention. As such, without showing unexpected results, the claimed flour percentage cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the percentage in the beer brewing ingredient of Walmsley et al. to obtain the desired processing flowability (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the

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general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

With regards to amino acid content, given Walmsley et al. disclose an ingredient and process of making the ingredient substantially the same as presently claimed, it is clear that the ingredient would intrinsically displayed the recited amino acid profile.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walmsley et al. (US 3,716,365).

Regarding claim 3, Walmsley et al. disclose a beer brewing ingredient and the process of making the ingredient comprising heating an aqueous slurry of ground malting barley at about 40° to about 55°C for a period of between about 30 and about 120 minutes (C8/L66-71). Walmsley et al. disclose that the pH of the water is adjusted to between about 5.2 and 5.8 and remains essentially the same throughout the process (C8/L59-62).

While Walmsley et al. disclose ground malting barley ground in a Hobart Model 2020 Grinder adjusted to No. 1 setting, the reference does not explicitly disclose a mixture of bran and shorts.

Given Walmsley et al. disclose ground malting barley, since bran and shorts are derived from barley, it is clear that the beer brewing ingredient would comprises bran and shorts.

With regards to amino acid content, given Walmsley et al. disclose an ingredient and process of making the ingredient substantially the same as presently claimed, it is clear that the ingredient would intrinsically displayed the recited amino acid profile.

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12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walmsley et al. (US 3,716,365) in view of Government of Alberta (“Barley Production in Alberta: Harvesting”) as applied to claim 1, and further in view of Sung et al. (KR 2002 062869-*Abstract Only*).

Regarding claim 11, modified Walmsley et al. disclose all of the claim limitations as set forth above. While Walmsley et al. disclose a beer brewing ingredient in the form of an aqueous solution, the reference does not disclose a dry powder.

Sung et al. teach disclose an immature barley powder prepared from an extract of barley (Abstract).

Walmsley et al. and Sung et al. are combinable because they are concerned with the same field of endeavor, namely barley extracts. Given that it was known to make a dry powder from an extract of barley, it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the beer brewing ingredient of modified Walmsley et al. in any form, including a dry powder, and arrive at the present invention.

Although modified Walmsley et al. does not disclose subjecting the food ingredient to a drying treatment at 110°C or lower, it is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) . Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing



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an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

Therefore, absent evidence of criticality regarding the presently claimed process and given that modified Walmsley et al. meets the requirements of the claimed product, modified Walmsley et al. clearly meet the requirements of present claim 11.

***Note-***

It is noted that the claimed process steps are all recited as passively. A process claim should recite active positive steps.

***Response to Arguments***

7. Applicant's arguments filed February 19, 2010 have been fully considered but they are not persuasive.

***Rejections under 35 U.S.C. §112, 2<sup>nd</sup> paragraph-***

Applicants explain that “the concentration of each amino acid indicates the amount of the amino acid released into water from 100g of food ingredient by autolysis reaction and is not the amount of amino acid contained in 100g of the food ingredient.”

In this case, given the claims are directed to food ingredient and method of producing a food ingredient, one of ordinary skill in the art would not have reasonably concluded that the claimed amino acid concentrations indicate the amount of amino acid released into water from 100 g. fo food ingredient by autolysis.

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Applicants assert that one of ordinary skill in the art would have known that the term "60% flour" means "flour having a yield of 60%" or in other words, "60% extracted flour."

It is not agreed that one of ordinary skill in the art would have known that the term "60% flour" means "flour having a yield of 60%." The term "60% flour" could be in reference to the food ingredient composition wherein the food ingredient is 60% flour plus some other component. It is not clear that this terminology refers to the amount of flour extracted from the grain.

***Rejections under 35 U.S.C. §103(a)-***

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH GWARTNEY whose telephone number is (571)270-3874. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./

Examiner, Art Unit 1781

/Keith D. Hendricks/

Supervisory Patent Examiner, Art Unit 1781